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The Kadota Fig

PART III

PLANTING and GENERAL ORCHARD TREATMENT

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THE BECKWITH FIG GARDENS CO.

GROWERS :: PRESERVERS :: SHIPPERS

of KADOTA Figs

REEDLEY, CALIFORNIA

SPACING OF TREES

The spacing of Kadota Fig trees should be considered from a different viewpoint than in the planting of other figs. It comes into bearing so much earlier, that close planting will be found to be very profitable in utilizing the ground to good advantage during the first few years. If they begin to crowd later on, the extra trees may be systematically removed. But in the meantime, no intercrop will pay much better than the Kadota itself.

With this idea in mind, we must consider that in very rich soils where a very rank growth might be expected, it would not be well to plant the trees as close as in thinner soils. We will outline two plans for spacing; the first at distances of 20x20; the second 25x25. These will give us respectively, 108 and 69 trees an acre. Subsequent removal of trees which are on the diagonal, would leave them spaced at 28x28 and 36x36. It does not seem that further removal of trees would be necessary but by taking out half of those that remain, it would leave them spaced 40x40 and 50x50 respectively. This may be made plainer by the following sets of figures:

20x20	108 trees an acre	25x25	69 trees an acre
28x28	54 trees an acre	36x36	34 trees an acre
40x40	27 trees an acre	50x50	17 trees an acre

As to how long trees planted at this distance should be left before possible removal, is hard to say. The severe pruning which we will give it, will allow for this close planting for a number of years. The tree will give warning in sufficient time for removal but probably it will not need to be done for from seven to ten years. In the meantime, we have had double the tonnage since the first commercial crop in the third year.

CUTTINGS VERSUS TREES FOR ORCHARD PLANTINGS

While it is true that a good stand of trees may be grown direct from fig cuttings, it is truer still that this generally proves to be a failure. It is almost impossible to give a cutting planted out in orchard form, the same care that it can be given in a nursery row. Only in case that nursery trees are not obtainable is it advisable to plant cuttings rather than wait another year. In this case the cutting should be about 12 inches in length and planted so that the top bud is flush with the ground. If in heavy ground about a foot of surface around the cutting should be removed to a depth of three or four inches and this filled in with sand. This will always keep packed snugly around the cutting and it will not bake after irrigation. The cutting should be kept continuously moist during the summer, the ground nicely mulched, and it will require irrigation twice as often as a nursery tree.

Several shoots will probably develop from this cutting. Ordinarily, the best one should be allowed to grow; this to be cut back the following spring to the desired point for branching. If two or three shoots have developed from the cutting, and are well placed and vigorous, these may be left after topping to within a foot or so of the ground. In this case we will have an underground trunk with the main branches coming out below ground. This is all right provided no suckers are allowed to grow.

PLANTING NURSERY TREES

You are about to plant a tree the future success of which depends most of all on its getting a good start. See that the roots are kept damp from the moment it is taken from the healing trench to the field. A fig tree will stand less exposure to the air than most other kinds of nursery trees. Before planting, see that there are no split or gnarled up rootlets left. If there are, cut them off clean.

The depth of the hole in which you are going to set the tree should be about two or three inches deeper than the depth in which it stood in the nursery row; in sandy soil, a little deeper still. Have a little pyramid of loose dirt just under the base so as to give the roots a slightly downward trend. Spread them out well with the strongest roots toward the direction of the prevailing wind. Cover them thoroughly with damp soil pressed firmly around the roots. Fill up the hole, leaving a loose layer on top to hold the moisture. As in the case of using cuttings, it will be found beneficial to put a good layer of sand around the tree especially in heavy soils that bake and where there is a limited water supply.

TOPPING—FOR THE HOUSE GARDEN TREE

Where to cut back the top is the next consideration. This is the first step in determining its future shape. If it is to be a garden tree for shade or ornamental purposes, it will be best to make the cut 12 to 24 inches from the surface of the ground, depending, of course, on whether it is a large or small nursery tree. It will also be well to say that, in case you are planting a very small rooting with only a few inches of growth on it, it will be advisable to train up a single shoot from the terminal bud, pinching off the side buds as they appear. Then the following spring, cut this shoot back to the desired point.

FOR THE ORCHARD TREE

But we will presume now that you are planting for best results in orchard form. In this case we should be guided by the idea that we want to obtain the lowest possible branching form from a single trunk; this, to facilitate the easy gathering of fruit with as little ladder work as possible. Bear in mind that the greatest expense you will have is in the harvesting of the crop and that a branch in the top of the tree, besides being out of easy reach, is apt to be too exposed to the sun and bear inferior fruit.

We will, therefore, start the tree low and endeavor to get the ideal of three main branches with about six inches space between them. This is not always possible, of course, and some will only have two while most of

them will have so many as to require considerable thinning out. We would not advise leaving over five at the most. The first branch should be close to the ground or right at the surface. One great advantage of having the tree low is, that the first buds at the base of a nursery tree, are farthest apart which makes for good spacing. Moreover the branches here have more of a tendency to come out at right angles from the trunk and this makes for future strength and rigidity.

Some growers may wish to start branches under the surface of the ground in order to get as low a crown as possible. This may be all right but care should be taken not to let any suckers develop. These will come up from the roots just outside their union with the trunk. If these suckers are left, they will prevent an equal distribution of the growth. Even with such a bush form, we should not lose sight of the function of the trunk which is to serve as a reservoir, receiving the sap from weak and strong roots alike and distributing it equally to all the branches.

PRUNING AT THE CLOSE OF THE FIRST YEAR

Now that the tree has been properly planted and has developed a season's growth, let us pass to the pruning of the next winter. On account of its low heading, the branches will have come up in a circle with an open center which we are going to need in the future for easy access to the inside of the tree. Some of these branches may have started so close together that they do not give proper balance or will chafe on becoming larger. Keep in mind that some day each one of these branches will be so large in diameter that they will all meet. Therefore be sure that enough space is left so that each one has a good union on all sides with the trunk. The more unfavorably placed ones will be cut off. Now select the side of the tree where the branches are farthest apart and keep this space open for entrance to the center of the tree. We will want to step into the center a few years later on in gathering fruit. The next thing to do is to cut all these branches to an approximate level not higher than a foot or eighteen inches from the original cut. Always cut just above an outside bud. After a little experience you will find that you can direct the growth of the branches in almost any way you desire.

PRUNING AT THE CLOSE OF THE SECOND YEAR

We will have found that from three to five branches develop from each cut so that at the end of the second season the number of branches will have at least trebled giving us an average of 15 or 20 branches from 3 to 6 feet in length. Cut out those that crowd, cross or grow in toward the center. You may have a dozen or so left. See that you have observed the opening provided for during the previous season as a doorway to the center. Keep this open by cutting out any branches that may have grown across it. Eliminate "V" shaped unions wherever possible. Such unions are weak and apt to break under a strain. The branches should come out as near at right angles as possible. Now cut back the top to within a foot or so of the last season's topping. This does not mean that an equal amount will be cut off of each. In order to secure the nearly level top, the inside branches must be cut much shorter than the outside ones.

PRUNING AT THE CLOSE OF THE THIRD AND SUCCEEDING YEARS

The next season's pruning will be practically the same as the second. After thinning our there will be somewhere near 30 or 40 branches, all starting within $2\frac{1}{2}$ or 3 feet from the ground. These will be the main framework of the tree. Having the initial growth now so distributed, it will not be so hard to keep it within bounds in the future. We have fore stalled the growth of any long non-bearing trunks and the strength of the tree is concentrated on fruit bearing wood. In pruning from now on, remember that you are forming by these annual cuts about a foot apart, natural steps up through the inside of the tree for the use of the fig picker. Keep the center just open enough so that he may step easily from one side to the other. There should be no necessity for having to use a ladder for many years.

Give particular notice to the tendency of the tree as it gets older to throw out the strongest growth on the outside and lower limbs. These tend to rob the tree center. Eventually, if the outside limbs are favored too much, it will result in an unhealthy condition of the center. As evidence of this, notice old fig trees where the growth has stopped at the top and is forcing its way out along the outside. While our system is to develop a wide spreading tree with a more or less open center and with the branches coming almost out of the ground, this outside growth needs to be controlled also.

In the pruning of older trees if they continue to show a rank growth, it proves that you have not left too much wood and that practically the same amount of pruning can be given it. If the growth is short and feeble, there should be less cutting back and more thinning out. In this case, however, look for the causes. In almost every case we have observed that such feeble growth is due to lack of blasting, nearness of hardpan or lack of sufficient air. It might also be on account of a heavy plowsole which needs to be broken up or the results of nematode infestation.

CULTIVATION AND IRRIGATION

Considering the results of close pruning, we often encounter the question of how to perform the cultivation of the orchard when the branches are so close to the ground and spread out so far. In cultivating with a team of horses, this might be a problem but if extra hoeing out under the trees had to be resorted to, it would be cheaper than training a high trunk and having to climb a ladder to pick the fruit. However, in using a tractor, it is very easy to swing a harrow or disc under the branches and we do not attempt to plow closer than just to the outside limbs. The dense shade under the tree helps to minimize the need of much cultivation and the irrigation during the late spring and summer, which we find so profitable, largely takes the place of intensive cultivation.

Water in abundance is our rule for Kadotas. It is impossible to sour or split the figs from too much water and the more it gets during the right season, the ranker the growth and the finer the figs. The only caution to take is not to irrigate so late in the season that it will keep the tree growing right into winter time when it might get frosted. With young trees when irrigation will not interfere with picking fruit, it will pay to continue to irrigate well into August. The first irrigation should be given after the spring cultivating before the soil begins to lose its moisture. This should be followed by another good soaking during the first part of June. During the month of July between the first and second crops, another flooding should be given. After each cultivation, give the ground a good discing and harrowing and after the last irrigation, leave as fine a mulch as possible on the ground. You will hardly get this finished before it is time to pick the second crop.

GATHERING THE CROP

The most important thing in gathering the crop is not to allow the figs to shrivel on the tree. This will require going over the trees two or three times a week. We figure on a man being able to pick on an average through the season of 400 pounds a day. To get the best results, we have found it best to pay a flat wage plus a bonus of so much a pound.

In picking the fruit, we have adopted the plan of having a special can hung from the picker's neck by means of a strap or rope. This leaves both of his hands free to pick figs and in climbing through the tree it is not in the way. The can will hold about ten pounds of figs and when full these are carefully emptied into shallow boxes holding about 20 pounds. These boxes are furnished to growers to within fifteen miles of our preserving plant. We have established a trucking system and call for the fruit at regular intervals. Doubtless other preservers will establish a like service in their vicinity.

In conclusion no infallibility is claimed for all of our methods.

The foregoing articles are the results of a long experience in the development of almost every California fruit, the last four years of which has been exclusively devoted to the Kadota Fig.